



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>



NTE30090 Light Emitting Diode (LED) High-Efficiency Red + Yellow SOT-23 Surface Mount

Features:

- 3.0mm x 1.6mm SOT-23 SMT LED, 1.0mm Thickness
- High-Efficiency Red + Yellow

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

DC Forward Current, I_F		
High-Efficiency Red	30mA	
Yellow	25mA	
Peak Forward Current (Note 1), $I_{F(\text{peak})}$	50mA	
Reverse Voltage, V_R	5V	
Power Dissipation, P_D	90mW	
Operating Temperature Range, T_{opr}	-30° to +85°C	
Storage Temperature Range, T_{stg}	-40° to +85°C	
Reflow Soldering (Preheat +150° to +180°C 60sec to 120sec, 10sec max)	+260°C	

Note 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

Electrical/Optical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Viewing Angle of Half Power	$2\theta_{1/2}$	$I_F = 20\text{mA}$	-	140	-	degrees
Luminous Intensity	I_V	$I_F = 20\text{mA}$, Note 2	2.0	4.0	-	mcd
High-Efficiency Red				4.0	-	mcd
Yellow						
Forward Voltage	V_F	$I_F = 20\text{mA}$	-	2.05	2.60	V
High-Efficiency Red				2.10	2.80	V
Yellow						
Peak Emission Wave Length	λ_P	$I_F = 20\text{mA}$	-	625	-	nm
High-Efficiency Red				589	-	nm
Yellow						
Dominate Wavelength	$\lambda_d (\text{HUE})$	$I_F = 20\text{mA}$, Note 3	-	618	-	nm
High-Efficiency Red				585	-	nm
Yellow						

Note 2. Tolerance: 30% measured with EXELTRON 2001

Note 3. The dominate wavelength, λ_d , is derived from the CIE Chromatic Diagram and represents the color of the device.

